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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/629,006	07/29/2003	Paul Adams	BIC-016	7341
29626, 7590 12/14/2007 THE H.T. THAN LAW GROUP WATERFRONT CENTER SUITE 560 1010 WISCONSIN AVENUE NW WASHINGTON, DC 20007			EXAMINER LEE, KEVIN L	
			ART UNIT 3753	PAPER NUMBER
			MAIL DATE 12/14/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

11

<b>Office Action Summary</b>	<b>Application No.</b>	<b>Applicant(s)</b>	
	10/629,006	ADAMS ET AL	
	<b>Examiner</b>	<b>Art Unit</b>	
	KEVIN L. LEE	3753	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 24 September 2007.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-36, 39-50 and 99-114 is/are pending in the application.
- 4a) Of the above claim(s) 4, 8-11, 17-21, 24, 26, 31-33, 35, 36, 39-44 and 48-50 is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-3, 5-7, 12-16, 22, 23, 25, 27-30, 34, 45-47 and 99-114 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Response to Amendment***

Applicant's amendment filed September 24, 2007 has been thoroughly reviewed and considered by the examiner. Applicant's arguments, with respect to the prior art rejections set forth in the Office action mailed May 25, 2007 have been fully considered and are persuasive. The prior art rejections have been withdrawn.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 5-7, 12-16, 22, 23, 25, 27-30, 34, 45-47, and 99-113 are rejected under 35 U.S.C. 103(a) as being unpatentable over Franklin (U.S. Patent No. 6,824,011) in view of Powell et al (U.S. Patent No. 6,135,150). The patent to Franklin discloses a fuel cell system comprising a fuel supply (40, 42) and a fuel cell (10, 20) adapted to provide electricity for an electronic device, the fuel cell system including valves (52, 54) in the fuel cell (10) and valves (44) in the fuel supply (40, 42). The valves are disclosed to engage each other when the fuel supply is coupled to the fuel cell and are self-sealing, col. 2, lines 9-20. The specifics of the valves are not disclosed. The patent to Powell et al discloses a valve assembly comprising a first and second

valve component (216, 219) respectively disposed within coupling members, col. 2, line 45 through col. 3, line 55. In view of the teaching of Powell et al, it would have been obvious to one of ordinary skill in the art to substitute the self-sealing valves for the valves of Franklin as an alternate means of controlling the fluid flow from the fuel supply and the fuel cell. In particular regard to claim 12, it would have been an obvious design expedient to have the spring constant of the valves substantially the same so that the valves open and close simultaneously upon connection/disconnection of the coupling members.

Claim 114 is rejected under 35 U.S.C. 103(a) as being unpatentable over Franklin in view of Powell et al as applied to claim 101 above, and further in view of Kojak, III (U.S. Patent No. 4,672,998). The fuel supply of Franklin lacks having a covering member. The patent to Kojak, III teaches providing a removable covering member (122) for a male coupler (24), col. 4, lines 26-28. In view of the teaching of Kojak, III, it would have been obvious one of ordinary skill in the art at the time of the invention to modify the apparatus of Franklin to include a removable covering member to protect the fuel supply coupler when the fuel supply is not in use.

Claims 1-3, 5-7, 12-16, 22, 23, 25, 27-30, 34, 45-47, and 99-113 are rejected under 35 U.S.C. 103(a) as being unpatentable over Prasad et al (U.S. Patent No. 6,924,054) in view of Powell et al (U.S. Patent No. 6,135,150). The patent to Prasad et al discloses a fuel cell system comprising a fuel supply (20) and a fuel cell (32)) adapted

to provide electricity for an electronic device, col. 3, lines 1-11. The fuel cell system including a valve (70) in the fuel supply and a valve needle (68) in the fuel cell to control the flow of fluid from the fuel supply to the fuel cell, col. 6, lines 38-64. Prasad et al teaches that any suitable connectors and valves may be used for the fuel solution outlet (28) and that typically self-sealing or automatically sealing connectors are envisioned for use with the fuel cell system, col. 6, lines 34-38. The patent to Powell et al teaches an automatically sealing valve coupling comprising a first and second valve component (216, 219) respectively disposed within coupling members, col. 2, line 45 through col. 3, line 55. In view of the teaching of Powell et al, it would have been obvious to one of ordinary skill in the art to substitute the automatically sealing valves for the valves of Franklin as an alternate means of controlling the fluid flow from the fuel supply and the fuel cell. In particular regard to claim 12, it would have been an obvious design expedient to have the spring constant of the valves substantially the same so that the valves open and close simultaneously upon connection/disconnection of the coupling members.

Claim 114 is rejected under 35 U.S.C. 103(a) as being unpatentable over Prasad et al in view of Powell et al as applied to claim 101 above, and further in view of Kojak, III (U.S. Patent No. 4,672,998). The fuel supply of Prasad et al lacks having a covering member. The patent to Kojak, III teaches providing a removable covering member (122) for a male coupler (24), col. 4, lines 26-28. In view of the teaching of Kojak, III, it would have been obvious one of ordinary skill in the art at the time of the

invention to modify the apparatus of Franklin to include a removable covering member to protect the fuel supply coupler when the fuel supply is not in use.

### ***Conclusion***

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to KEVIN L. LEE whose telephone number is (571) 272-4915. The examiner can normally be reached on **MONDAY-THURSDAY**.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, GREGORY HUSON can be reached on (571) 272-4887. The fax phone


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number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

DECEMBER 10, 2007

  
KEVIN LEE  
PRIMARY EXAMINER